CLAIMS

What is Claimed is:

1. A method for removing organolead compounds from aqueous organolead compositions, comprising:

providing an aqueous compositions including organolead compounds;

ozonating said organolead compositions with ozone, wherein said organolead compounds are oxidized producing insoluble lead oxide polymers;

contacting said aqueous compositions including insoluble lead oxide polymers through activated carbon to remove said insoluble lead oxide polymers;

filtering said aqueous compositions including lead oxide polymers through at least one filtering means to remove said insoluble lead oxide polymers; and

recovering said aqueous compositions substantially free of organolead.

2. The method according to claim 1, wherein said organolead compounds comprises at least one of tetra alkyl lead, tetraethyl lead, tetra methyl lead, ethyltrimethyl lead, diethyldimethyl lead, and any ethyl or methyl lead compounds thereof.

3. The method according to claim 1, wherein said organolead compounds being organohalogenated lead comprising at least one of alkyl lead chlorides including ethyl lead trichloride, diethyl lead chloride, triethyl lead chloride, methyl lead trichloride, dimethyl lead chloride, trimethyl lead chloride, and mixture of transalkylation products thereof.

4. The method according to claim 1, wherein contacting said aqueous composition through activated carbon substantially removes other unwanted contaminants and/or impurities.

5. The method according to claim 1, wherein said filtering means include filters range in porosity from about 1μm to about 0.5μ.

6. The method according to claim 1, wherein said ozone is produced by chemical or electrical generation.

7. The method according to claim 6, wherein said ozone is produced by an ozone generator.

8. The method according to claim 1, wherein said ozonating said aqueous organolead compositions with ozone for at least about 25 seconds.

9. The method according to claim 1, wherein said organolead compounds are reduced from up to about 99%.

10. The method according to claim 1, wherein said aqueous organolead composition was exposing to at least about 0.001 moles of ozone during said ozonating process.

11. A method for removing organolead compounds from non-aqueous compositions including organolead fuel compositions, comprising:

providing fuel compositions including organolead compounds;

ozonating said organolead fuel compositions with ozone, wherein said organolead compounds are oxidized producing insoluble lead oxide polymers;

contacting said organolead fuel compositions including insoluble lead oxide polymers through activated carbon to remove said insoluble lead oxide polymers;

filtering said fuel compositions including lead oxide polymers through at least one filtering means to remove said insoluble lead oxide polymers; and

recovering said fuel compositions substantially free of organolead.

12. The method according to claim 11, wherein said organolead compounds comprises at least one of tetra alkyl lead, tetraethyl lead, tetra methyl lead, ethyltrimethyl lead, diethyldimethyl lead, and any ethyl or methyl lead compounds thereof.

13. The method according to claim 11, wherein said organolead compounds being organohalogenated lead comprising at least one of alkyl lead chlorides including ethyl lead trichloride, diethyl lead chloride, triethyl lead chloride, methyl lead trichloride, dimethyl lead chloride, trimethyl lead chloride, and mixture of transalkylation products thereof.

14. The method according to claim 11, wherein said contacting said fuel composition through activated carbon substantially removes other unwanted contaminants and/or impurities.

15. The method according to claim 11, wherein said filtering means include filters ranging in porosity from about 1μm to about 0.5μ.

16. The method according to claim 11, wherein said ozone is produced by chemical or electrical generation.

17. The method according to claim 16, wherein said ozone is produced by an ozone generator.

18. The method according to claim 11, wherein said ozonating said organolead fuel compositions with ozone for at least about 25 seconds.

19. The method according to claim 11, wherein said organolead compounds are reduced from up to about 99%.

20. The method according to claim 11, wherein said organolead fuel composition was exposed to at least about 0.001 moles of ozone during the ozonating process.